

F VIII 2
5 18

1884²/p

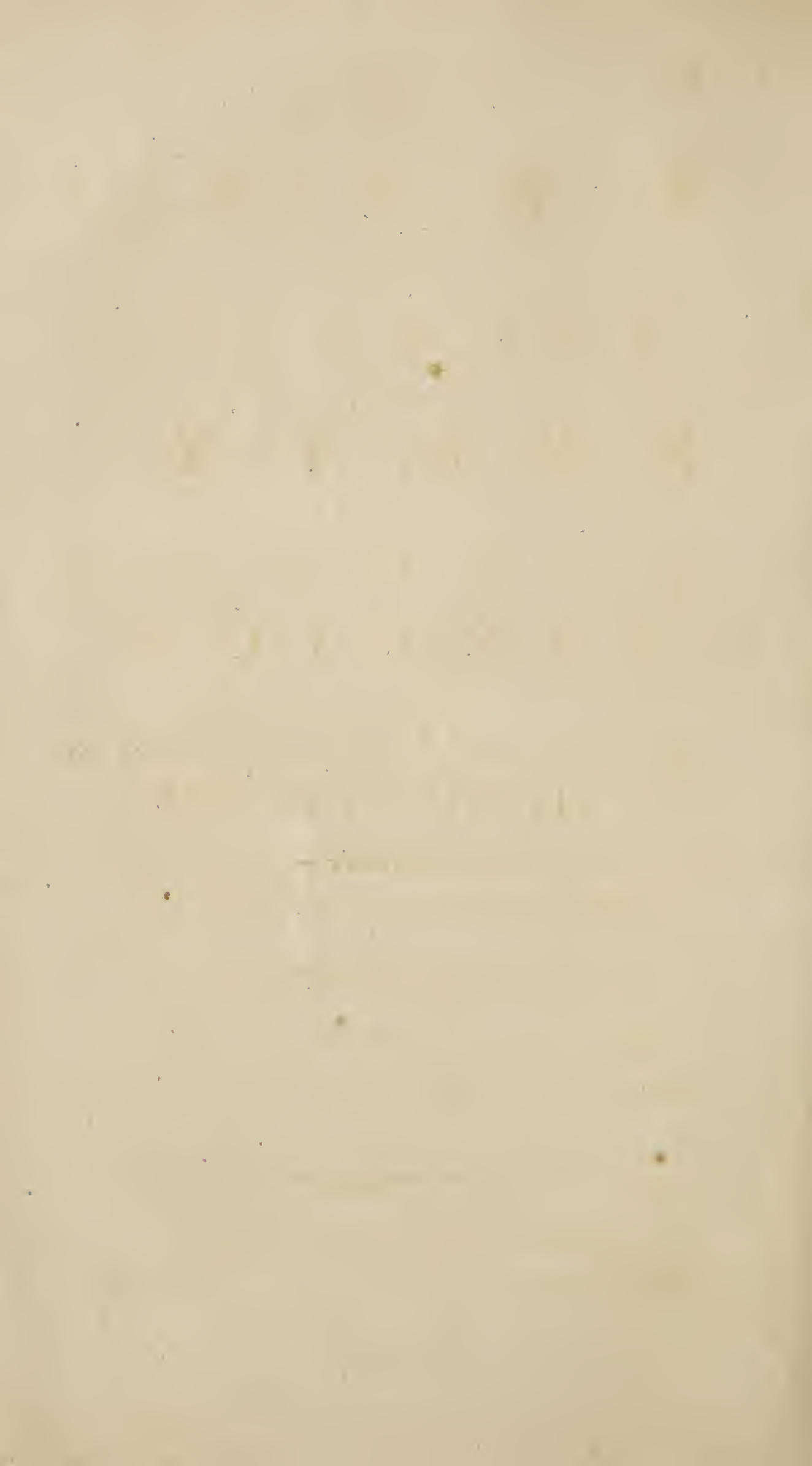
A N
E S S A Y
O N T H E
J A U N D I C E,

B Y
WILLIAM CORP, M. D.

MEMBER OF THE ROYAL MEDICAL SOCIETY OF EDINBURGH, AND
PHYSICIAN TO THE PAUPER CHARITY OF BATH.

PRICE ONE SHILLING AND SIX-PENCE.

3/6



547
AN
ESSAY
ON THE
JAUNDICE;
IN WHICH THE
PROPRIETY OF USING
THE
BATH WATERS
IN THAT DISEASE,
AND ALSO
IN SOME PARTICULAR AFFECTIONS OF
THE LIVER, IS CONSIDERED.

QUAM MAXIME FIERI POTERIT, DABO OPERAM.

CICERO.

By WILLIAM CORP, M. D.

MEMBER OF THE ROYAL MEDICAL SOCIETY OF EDINBURGH, AND
PHYSICIAN TO THE PAUPER CHARITY OF BATH.

BATH: Printed by R. CRUTTWELL;
AND SOLD BY C. DILLY, LONDON; AND BY THE BOOKSELLERS OF
BATH AND BRISTOL.

M DCC LXXXV.



T O
SIR NOAH THOMAS,

PHYSICIAN IN ORDINARY TO HIS MAJESTY,
FELLOW OF THE ROYAL COLLEGE OF
PHYSICIANS, AND OF THE ROYAL SOCIETY,

T H I S E S S A Y

I S

D E D I C A T E D,

A S

A TESTIMONY OF RESPECT

F O R

H I S A B I L I T I E S,

A N D O F

G R A T I T U D E

F O R

T H E F R I E N D S H I P

H E H A T H S H E W N

T H E A U T H O R.

b

Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

P R E F A C E.

AS no Treatise hath been expressly published on the management of icteric persons, who come hither for the benefit of our springs, it is presumed that the following may not be unacceptable to the public.

The chief design of the Author is, to point out those species of the Jaundice in which the Bath waters
waters

may be useful when they are either internally or externally applied; and likewise to mark, as accurately as he is able, the particular circumstances attending each species, in which either method of application may prove hurtful.

He hath also endeavoured to direct such a method of employing medicines, as is likely most effectually to co-operate with the waters in removing the disease: He hath, therefore, more particularly, attended to the exhibition of emetics and purgatives, which, in his opinion, are commonly given in this disease at too great a distance

a distance from the time of bathing.

It is however to be observed, that the management of them, in the manner laid down, must be subjected to some restrictions; for there are many circumstances which may lead us to deviate from a rigorous observance of the general plan.

The Author therefore wishes it to be remembered, that the employment of emetics, with successive bathing, purging, and exercise, is calculated only for those whose constitutions are not much impaired

paired by the disease. When the reverse is the case, or the patient is naturally of a delicate or irritable habit, the distance between the employment of those several remedies must be greater.

Thus much it is thought necessary to premise concerning the practical part.

With respect to the theoretical part, the Author begs leave to remark, that, as he only intended to publish a concise Essay, he hath purposely avoided minute disquisitions, and hath only spoken of causes and effects so far as he thought

thought it was necessary to explain his own opinion concerning them. For the same reason also, he hath made no observations on what is termed the *black* Jaundice ; which hath been pretty generally deemed a distinct species,* being persuaded that it originates from the same cause as the *yellow* Jaundice , and is only to be considered as an higher degree of the same disease.

With all its imperfections, therefore, the Author submits the following Essay to the public, presu-

* Icteri tot sunt species, quot colorum varietates, v. gr. viridis, flavus, niger, &c.

ETMULLER, de Ictero.

ming that its conciseness will at least secure him from an accusation which might otherwise arise from the *tædium legendi*.

BATH,

Dec. 11th, 1784.

A N
E S S A Y
O N T H E
J A U N D I C E.

THE JAUNDICE is usually preceded by some uneasiness, or sense of fulness or pain in the region of the Liver or Stomach, with loss of appetite, dejection of spirits, lassitude, sluggishness, or dislike to motion, and a costive belly.

B

These

These symptoms seldom continue long, before the disease is discovered by a yellowness of the countenance, which is particularly conspicuous in the membranous tunic of the eye, and by the urine, which gives a very considerable saffron tint to linen, or other porous substances immersed in it. The tongue also becomes yellow, the mouth affected with bitterness, and the stomach with nausea, the respiration is less free than usual, and the pulse slow and oppressed. The belly also becomes more obstinately costive, and the fæces when discharged are *usually* white, or of an ash colour. The patient complains of some degree of thirst, and a clamminess of the mouth, and sometimes

sometimes of an itching or pricking sensation in particular parts, or over the whole surface of the body ; he is sometimes also troubled with a hiccough, and fits of shivering in the course of the disease.

The yellow appearance of the skin, eyes, and urine, which so remarkably distinguishes this disease from every other, both the ancient and modern physicians have ascribed to a suffusion of bile on the surface ; and they mutually agree in attributing the white or ash-colour stools to a defect of that fluid in the intestines. They differ however as to the means by which those effects are produced. Some of the ancients, and indeed many of the moderns, have supposed that the
bile

bile is naturally in a state of mixture, and in constant circulation with the blood ; and that by the operation of certain causes it may be separated from it without any interposition of the liver. Hence they imagined, that such a fermentation or commotion of the blood is sometimes excited as to occasion a separation of its bile, and so produce the jaundice. This was the opinion of *Galen*, and appears plainly to have been the opinion of *Pecklin*, and, in some measure, the sentiment of *Morgagni*, and *Van Swieten*.

Others on the contrary, whilst they maintained that the bile circulates with the blood in a state of perfect mixture, have considered
the

the liver as an organ necessary to *secern* or *separate* it from that fluid. They have accordingly supposed, that some obstruction or hindrance to the *separation* of the bile from the mass of blood is the cause of the jaundice. But as the blood in no part of the system, not even in the *vena portarum*, exhibits any bilious appearance either to the eye or taste, it seems most probable that the bile is a fluid *sui generis*, not merely *secerned*, but *produced* from the blood, by some peculiar operation of the liver.

In what this operation consists, we know not, but it is certain that the bile it produces is directed by nature to pass through particular tubes or cavities, namely, the biliary pores,

pores,* the hepatic duct, the gall-bladder, the cystic and common duct, and the intestines, from whence it is discharged from the body.--- When it enters other channels in any considerable quantity, the functions of the system are disturbed, and that yellowness of the skin, eyes, and urine produced, which characterizes the Jaundice.

These circumstances, I apprehend, take place when the flow of bile to the intestines is obstructed either in the common or hepatic duct. It hath, however, been a matter of dispute, whether a mixture of liver-bile

* The biliary pores are vessels which first receive the bile, and by uniting, form one trunk called *ductus hepaticus*, which joining the *ductus cysticus*, or duct of the gall-bladder, forms with it the *ductus communis choledochus*, which opens into the *duodenum*, or first intestine.

with

with the circulating fluids can of itself produce the Jaundice; or, in other words, whether an obstruction of the hepatic duct alone be adequate to that effect. Those who maintain that it cannot, have been led to make that conclusion, by observing the different appearance of the bile in the gall-bladder, and in the hepatic duct. As it flows through the latter, it is comparatively thin, pale, and insipid; but in the former it is more viscid, of a deeper colour, and more bitter.

That this difference arises only from a stagnation of the bile in the gall-bladder, is, I believe, pretty generally admitted; and if that be the only cause, I know no reason why a similar stagnation may not happen
from

from an obstruction long continued in the hepatic duct, so as to heighten the colour of the bile sufficiently to tinge the body when it enters the circulation. But even without such a stagnation, Dr. *Heberden* insinuates, that the liver bile received into the course of circulation may produce a complete Jaundice; for he remarks that if any of the *pori biliarii*, through which the bile should pass into the common gall duct, be obstructed, it will be forced back into the blood, infecting that and all the humours thence derived with its bitterness and golden colour.

An obstruction of the cystic duct alone hath been mentioned by authors as no uncommon cause of the disease. I am however inclined to think

think, that it never of itself produces a permanent Jaundice. For if the obstructing cause be not so near the extremity of the cystic duct as to compress the orifice of the hepatic, nor so considerable as to press upon and diminish the capacity of the common one, the bile will readily pass from the liver into the intestines ; in which case, should the Jaundice arise, it must be from an absorption of that bile only which was in the gall-bladder previously to the obstruction of its duct. If therefore we consider that the lymphatic system is able to absorb in a short space of time a much larger quantity of fluid than can possibly be contained in the gall-bladder, as in dropfies, we can readily imagine,

C

that

that were the latter even full of bile when the obstruction takes place, it would be soon absorbed and discharged from the body. Hence the Jaundice will be removed, although the cystic duct remain obstructed, and will not again return, as no fresh bile can enter the gall-bladder to be absorbed and dispersed through the system.

But it is probable, that the most common cause of this disease is an obstruction of the *ductus communis choledochus*, in which case, the flow both of the liver and cystic bile into the intestines is prevented. It may, therefore, by regurgitating on that organ, immediately enter the course of the blood, or be conveyed thither by the lymphatics of the excretory ducts

ducts and gall-bladder, or, by transfusing through these, be absorbed by the lymphatics of the cavity. In both cases, the Jaundice will continue as long as the common duct remains obstructed.

Nosological writers take notice of many species of this disease: Professor *Cullen*, however, mentions only five, which are to be deemed *idiopathic*, viz.

Icterus calculosus,
 ——— *spasmodicus,*
 ——— *hepaticus,*
 ——— *gravidarum,*
 ——— *Infantum.*

On the two latter of these, I think it unnecessary to make any remark, as the one disappears soon after delivery, and the other is removed by a
 gentle

gentle dose or two of some opening medicine.

In treating of the former, I shall reverse the order in which they are here placed ; and first consider the third species.

1st. *Icterus hepaticus*. Abscesses and stony concretions formed in the liver, have been sometimes found to compress the ducts, so as to prevent the passage of the bile into the intestines. But the most frequent cause of the hepatic Jaundice arises from a schirrosity or hard tumour in a particular portion of that organ. This cause hath indeed been spoken of as a very common one, and sufficient to excite the disease, if it happen in any part of that viscus. I am however, of opinion, that a schirrosity
of

of the liver is more often an effect than a cause of the Jaundice ; and likewise, that it excites the disease only when it is situated in that portion of the liver which is contiguous to the excretory ducts.

This latter remark, I apprehend, is sufficiently confirmed by dissection, for we often find abscesses and schirrosities, and other affections in those parts of the liver which are at a distance from the ducts, without any appearance of the Jaundice.

If indeed the bile were naturally in a state of perfect mixture with the blood, a schirrosity in any part of the liver might excite the disease : For, in that case, its *secerning* power would be diminished, and some retention of the bile succeed : Whereas
if

if the liver be an organ which actually *produces* that fluid, the consequence of a schirrus in a part remote from the ducts will be only a diminution of the quantity usually produced. The disease, therefore, which would arise from such a circumstance, instead of the Jaundice, would be some other, depending perhaps on an imperfect chylickation, since a due proportion of bile is found necessary to facilitate and complete the process of digestion.

In whatsoever part of the liver, however, a schirrus arises, it may be productive of *dropsy*, and at the same time a Jaundice may appear; in which case it is probable that the latter disease is excited by the pressure of water on the excretory ducts
of

of that organ, and is merely an effect of the dropfy, and not of the fchirrus.

Inferences, therefore, which are drawn from preconceived notions concerning any difeafe, must be often erroneous, and on that account we should not implicitly confide in the doctrines formerly advanced concerning those fchirrofities of the liver which excite the Jaundice.

For it is reasonable to suppose, that the ancients, and those who maintained that the bile is naturally in a state of intimate mixture with the blood, and that the liver is necessary to separate it, would, upon the inspection of icteric patients after death examine only that viscus ; in any part of which, should they
and

discover a schirrosity, they would immediately, from the opinion they had previously adopted, assign that schirrosity as a sufficient cause of the disease, without examining the particular state or condition of the ducts.

But when a schirrus arises in that part of the liver which is contiguous to the excretory ducts, sufficient to compress either of them, the flow of bile into the intestines may be so impeded as to give rise to the Jaundice.

An *Hepatitis*, or inflammation of the liver, is sometimes accompanied with the Jaundice, but I presume this latter disease doth not arise from the former, except that part of the liver is inflamed which is contiguous to the ducts, in which case, it is probable,

probable, that these are inflamed also. Hence their capacities would be diminished, and a proper flow of bile into the intestines prevented. *Boerhaave* therefore erred very considerably, when he mentioned the Jaundice, or yellow colour of the skin and eyes, as a *constant* symptom of the hepatitis.

2dly. ICTERUS SPASMODICUS. A spasmodic affection of the gall-ducts hath been considered by many as no uncommon cause of the disease; for which reason, I just take notice of it here, although I differ from an opinion which hath been and is at this time pretty generally received.

It is now, I think, universally admitted, that no spasm can arise in any part which is not endued with

D

muscular

muscular fibres, and it is acknowledged by the most eminent anatomists, that no such fibres can be discovered in the gall-ducts. Every reasoning, therefore, which is designed to prove the probability of a spasmodic affection of them, must be altogether hypothetical. If indeed such a doctrine were even true, and the Jaundice were excited by that cause, it would scarcely become the subject of practice; for tonic spasms are only of a temporary or short duration, and those which are termed clonic or convulsive, we cannot suppose capable of exciting that permanent Jaundice which demands the attention of a physician.

A spasmodic affection of the *duodenum* may perhaps sometimes take place,

place, as it possesses a muscular coat. By the contraction of its fibres, therefore, the orifice of the common duct may be so compressed as to produce the Jaundice.

This is probably the case, if the disease be ever excited by the hy-
stERIC colic, independent of gall-
stones, and that it may, hath been
the opinion of *Sydenham* and many
other respectable authors: I am
however disposed to believe, that it
never is excited by an hystERIC affec-
tion, except biliary concretions were
in the gall-bladder, previous to or
at the time of its attack. For I
think it pretty plainly appears from
the writings of *Sydenham*, on the
hystERIC colic succeeded by a Jaun-
dice, that he mistook an effect for a
cause,

cause, or in other words that the colic he there describes was excited by the passing of one or more gall-stones through the cystic duct into the common one, which latter being larger than the former, admitted them without pain. Hence the colic ceased, and the Jaundice succeeded, from an obstruction of the common duct, by the stones which had passed into it.*

But were the Jaundice even excited by a spasmodic affection of the

* Nonnunquam in Colon, et regionem *scrobiculo cordis* subtensam impetum faciens, dolorem vix ferendum infligit, *Iliacæ Passioni* haud absimilem, ubi ægra immodice vomit, colluviem quandam viridem, Bili, quam *porraceam* appellant, fere parem, nunc etiam insoliti alicujus coloris, rejiciens. Sæpe etiam postquam ægra ad multos dies jam dicto colore, et continuo vomituritionis conatu tantum non fuerit enectæ, tandem Ictero intensione omnem corporis superficiem ad instar croci tringente, solvitur paroxysmus.

SYDENHAM.

intestines,

intestines, its continuance would be short, and on that account it is scarcely to be deemed a disease. I shall not therefore offer any further observations on this subject, but conclude with the words of SYDENHAM: *In hoc itaque casu nihil omnino agendum, cum Icterus huic occasione originem debens, sensim sponte sua faceſſat, ac tandem brevi temporis spatio penitus evaneſcat.*

3dly. ICTERUS CALCULOSUS. The most frequent exciting cause of the Jaundice, are biliary concretions. We scarcely indeed ever meet with this disease in any considerable degree where gall-stones have not appeared, either on the decline of it, or on the dissection of those who have died under it. These concretions

tions are generally formed in the gall-bladder, where they sometimes remain for many years, without producing even the slightest uneasiness. From this situation, however, they are liable to be removed, so as to obstruct the ducts, by various causes, such as violent muscular exertions, as in running, hard riding, jumping, wrestling, lifting considerable weights, &c. By the operation also of strong emetics or purgatives, and the cold fit of an intermittent, and by violent passions of the mind, and by convulsive fits also, a permanent Jaundice may be excited when gall-stones are present.

The causes last mentioned have been generally supposed to excite the disease by spasmodically affecting

ing

ing the gall-ducts, and some of the later writers have mentioned the bite of the viper as operating in a similar manner. I am however persuaded, that neither it, nor any of the former causes taken notice of, ever induced a permanent Jaundice, except gall-stones or some biliary concretions were in the gall-bladder previously to their operation.

These several causes seem to induce the disease, chiefly by exciting the action of particular parts, such as the stomach and intestines, the diaphragm and abdominal muscles, whereby concretions in the gall-bladder are dislodged and protruded so as to obstruct the excretory ducts. We can easily conceive, that the operation of emetics and purgatives,
and

and violent ague fits, and the muscular exertions just taken notice of, may produce this effect ; and it is not, I think, difficult to comprehend how the bite of a viper may do the same, when stones are in the gall-bladder ; since we learn from the experiments of Dr. *Mead*, that those animals which were bit by it were seized with vomitings, and convulsions, &c.

Although gall-stones be the most common exciting cause of the Jaundice, yet a mere visciduity of the bile may sometimes obstruct the ducts sufficiently to produce it.

I think it proper, therefore, to mention this circumstance here, and in another place to treat very shortly of the means to remove such an obstruction.

Of

Of the Cure of the Jaundice.

I deem it altogether unnecessary to lay down any particular method of cure for the second, fourth, and fifth species of this disease, mentioned by Dr. *Cullen* in his *Nosologia Methodica*. I shall, however, deliver a few words on that schirrosity of the liver which occasions the third species, since the Bath waters have been condemned as injurious in every schirrous affection of that organ.

Previously to this, I must attempt to discover when a schirrosity of the liver is really present, and likewise when it is in an inflamed or uninfamed state.

E

1st. The

1st. The Jaundice may in general be suspected to arise from a schirrus, and from that kind which is of an indolent or uninflamed disposition, when *an hardness or resistance can be perceived upon pressing the region of the liver, which at the same time is unattended with pain and fever, and when only a trifling degree of uneasiness is felt by the patient on lying upon the left side.*

2^{dly}. But when a resistance and hardness is perceived on pressing the right hypocondrium, attended with some pain; and when that is increased lying upon the left side, and especially when it is accompanied with some fever, however trifling it may be; we presume that the schirrus is in an inflamed state.

From

From a non-observance of these necessary distinctions, the Bath waters may, perhaps, have been improperly employed, and on that account supposed to be hurtful in every case of schirrous liver. I cannot however help thinking, that the method hereafter to be laid down in this Essay for the cure of the *Icterus calculosus*, may with equal safety, though not with equal success, be pursued with some little variation only in the Jaundice excited by a schirrosity of the liver, provided there be no tendency to inflammation.

I am led to this opinion by observing the great relief which the judicious employment of the waters afford to those whose constitutions
are

are broken down by hard drinking. In such persons, I apprehend, that not only the tone of the stomach is destroyed, but the liver also is more or less affected with schirrosities.

This, indeed, seems to be the opinion of Dr. *Heberden*, who observes, that the most common cause of schirri in the liver is an intemperate use of spirituous liquors, which specifically hurt that organ far more than they do the stomach, to which they are immediately applied, or than they do any other of the bowels. If therefore our conclusion be just, it necessarily follows, that the Bath waters will at least do no harm in the Jaundice which is excited by a similar affection of that viscus.

It

It is well enough known, that when a schirrus, formed in the liver or in any other part, is attended with the least degree of inflammation, the stimulant class of medicines do harm. Hence the Bath waters, from their known properties, as stimulants, may in such a circumstance be deservedly rejected. When indeed schirri are in a quiescent or uninflamed state, provided they be so situated as not to injure any of the organs of life, it is perhaps most prudent to leave them to the operation of nature; and, if we employ any medicines, to avoid particularly all such as tend to increase the action of the vessels of the part, lest they inflame it. But when the life of the patient depends upon the removal

moval or diminution of such indolent tumours, as is the case in the Jaundice which is excited by them, it may be allowable to employ those means which are thought capable or most likely to break through them, and render the vessels of the part pervious.

If we look into Authors who have written on the management of schirrous livers, which are in an indolent or uninflamed state, we shall find that medicines of the most stimulant nature have been recommended by them, such as the various preparations of mercury, and the more active gums. If in such a case, therefore, those have been found useful, I know no reason why the drinking of the Bath waters, and bathing in them, may

may not be occasionally employed with equal safety, if not with equal advantage, when the Jaundice is excited by a schirrosity of the liver. But should the pulse be too much accelerated by the use of them, or the urinary discharge be not equal to the quantity of fluid which is drunk daily, it will be proper to desist.

Thus much I have thought necessary to observe concerning that obstruction of the bile which is produced by a schirrosity of the liver. As, however, the disease is generally excited by gall-stones or viscid bile, in which cases only the employment of the Bath waters is found of any considerable utility, my principal attention will be directed to the removal of those causes.

The

The late Professor *Monro* remarked, that in far the greater number of icteric cases, physicians ought to act with a view to stones that are to be expelled, for in no case perhaps can we be certain that they are not present. Before, therefore, I enter upon any particular treatment of the Jaundice, I shall attempt to distinguish when the obstruction which produces the disease is occasioned by gall-stones, and when it arises merely from viscid bile.

This latter distinction is indeed very difficult to make; and those who are best acquainted with the *onus probandi* in medical affairs, will readily overlook my defects in this particular.

If

If the Jaundice arise suddenly without fever, or after exercise or violent agitations of the body attended with pain more or less acute in the region of the liver, especially if it come on by paroxysms or fits, and if the stomach be affected with considerable vomiting or nausea, and the stools be perfectly white or of a clay-colour, and the disease have happened more than once, we may, I presume, judge, that gall-stones are present.

But when the obstruction which produces the disease depends simply on a viscid state of the bile, it approaches gradually. The body first becomes more costive than usual, and the countenance in some degree more sallow: this latter circumstance however goes off and returns occasionally

for some weeks before a settled yellowness in the face and eyes is to be observed, at which time a more obstinate costiveness takes place. The patient perceives little or no pain in the region of the liver, but complains of a sense of fullness and considerable sickness, and his stools are always more or less tinged yellow.

1st. In those cases of the Jaundice which are excited by gallstones, the pain is sometimes, although very rarely, so severe as to quicken the pulse very considerably, and to threaten an inflammation in the part obstructed, on which account the patient must lose blood, especially if he be young and plethoric, and must take gentle purgatives. I have usually given the common
saline

saline draught with manna dissolved in it every three or four hours, and toast and water alone or with currant jelly, or water in which cream of tartar and pearl barley have been boiled, made grateful by the addition of sugar or honey, as common drink. But should the sickness attending the disease be so considerable as to prevent the retention of these draughts, and of every other medicine of a similar nature, it will be necessary to throw into the bowels every two or three hours a pint and half of water gruel, which is often of considerable use as a fomentation, at the same time that it sufficiently empties the intestines. If, notwithstanding, this symptom continue obstinate, it will be necessary after blood-letting

blood-letting to exhibit opium in pretty considerable doses, at proper intervals, in order to allay it.

When this troublesome symptom is removed or abated, the draughts before prescribed, or other medicines of a mild nature, and of a similar intention, may be given. And when the symptoms of inflammation are somewhat diminished, the patient may go into a bath of about the temperature of ninety-seven or ninety-eight degrees of Farenheit's thermometer, which is rather a temperate one.

This however contains the highest degree of heat that can be employed with safety, or be at least with prudence recommended, when there is the smallest tendency to inflam-

inflammation.* The patient should remain in this temperate bath for half or three quarters of an hour, provided no faintness come on ; and as the water loses the necessary heat, it must be renewed by the hot spring. It will however be highly improper to drink of the waters, until every symptom of inflammation be entirely removed.

In the management of icteric patients according to the plan laid down in this Essay, it will appear, that the private baths must be employed, the accommodations of which are in every respect convenient

* Neque minus caute procedendum est cum balneis nimis calidis, in ipso morbi statu ac paroxysmo adhibendis.—Contra vero tepida et temperatiora, securius possunt admitti.

HOFFMAN, de Cachex. icteric.

both at the hot baths, and also of late at the Abbey baths, which are under the direction of Mr. *Sloper*.

2dly. But when we are under no apprehension of inflammation, and the system appears sluggish, which is for the most part the case, our treatment of the disease must be essentially different.

We may begin the cure by giving an emetic in the paroxysm of pain ; or if the pain be of itself sufficient to produce vomiting, that vomiting should be encouraged to a certain extent by drinking freely of chamomile or horse-radish tea, or any other fluid which will answer the purpose. For nothing seems so well calculated to facilitate the passage of a stone into the intestines, or to force it
back

back into the gall-bladder, as the great action of the stomach and abdominal muscles, which emetics occasion.

Dr. *Heberden* observes, in the Medical Transactions, that a vomiting excited while the pain was intense, has rather quieted than aggravated it, and has never brought it on. In the truth of which observation I have lately been confirmed by exhibiting an emetic to a person during the paroxysm of severe pain, which was entirely removed by its operation:

Soon after the effects of the emetic have ceased, the patient should go into a bath of the same temperature as the former, or two or three degrees higher, and remain in it until he begin to be fatigued. To some however

however it may appear more rational or consonant with theory, to direct the patient to go first into the bath, and not to take the emetic until he come out of it, from an idea that the gall-ducts, being previously relaxed by the warm bathing, would the more readily give way to the expulsion of a stone by the action of vomiting. This method however I have tried more than once, and have found, that the emetic given immediately after the use of the bath hath operated entirely, or for the most part, as a sudorific, or else, after remaining a few hours in the body, it hath produced only a gentle purgative effect. I have even directed a patient to take a pretty strong emetic about half an hour previously

previously to his going into the bath in order that it might operate whilst he was there, supposing that I should thereby procure some relaxation of the gall-ducts, at the same time that an expulsive force would be excited by the emetic. This, however, did not succeed; for its operation was retarded until some time after leaving the bath, although he felt considerable sickness, and a very strong inclination to vomit just before he went into it.

This circumstance therefore seems to be an additional confirmation of the great consent which subsists between the nerves and blood-vessels of the stomach, and those which are on the surface of the body, and it may afford an useful hint to the

G judicious

judicious reader in the management of stomach cases. But it may be observed, that the sudorific effect produced by giving the emetic immediately after bathing would have been prevented, by reserving it for some hours, when it is presumed that the tendency to a determination to the surface hath subsided. Were we however to defer it so long, it is not clear that the gall-ducts would then be in a more relaxed state than usual, and if they be not, the patient is as unfit to take the emetic on that account, as he was before he entered the bath.

After bathing, I usually direct about two ounces of the Tinctura Sacra with a drachm of the compounded spirit of lavender to be taken,

taken, which is a sufficient cordial, and by its purgative tendency will carry off from the bowels whatever may be dislodged from the gall-ducts. If however after this the pain be very troublesome, opium should be very liberally given. Bladders also half filled with warm water, and strong sinapisms applied to the region of the liver, and renewed occasionally, and sometimes dry cupping or with scarification, have given ease in this state of the disease, and in that also which is attended with inflammation.

3dly. When there is no particular pain or considerable uneasiness in the region of the liver or stomach, as is sometimes the case if a stone continue long in the same situation, I generally

generally adopt the following plan, which is less fatiguing to the patient than the former one.

In the evening an emetic is prescribed, and on going to bed the following draught is to be taken, provided the patient hath been accustomed to pass restless nights.

R. Salis Abfinthii, scrupulum

Aquæ Cinnamom. simpl. unciam et drachmas sex

Elixir Aloës, drachmam

Tinct. Thebaicæ, guttas triginta ; Fiat haustus.

On the succeeding morning the following opening medicine is directed to be taken ; and in about three quarters of an hour after, the patient should go into the bath.

R. Tartari solubil. drachmas duas

Infusi amari purg. unciam et drachmas sex

Tinct. Jalapii

— Cardamom. singulor. drachmam ;

Fiat haustus.

During

During his stay in the Bath, he should move about, and endeavour to dislodge whatever may obstruct the ducts, by variously inclining his body, and by gently pressing or rubbing the region of the liver and stomach.

On his return home, instead of going to bed, he should exercise on a chamber-horse, and occasionally have those parts rubbed by the hand of some attendant well oiled, to prevent that excoriation or soreness which would arise from dry friction. But should he be so languid on his return as to be obliged to lie down, he ought only to be thinly covered in order to avoid profuse sweating, which would be injurious by weakening the system.

IF

If the weather be fair and mild, and the strength of the patient permit, it will be highly proper for him to exercise on horseback, or in a carriage on a rough road, about six or seven hours after bathing, or when the physic hath done operating. Horse exercise indeed should be daily made use of by those who are able, either on the road or in our riding-schools; and those who cannot pursue such exercise, must never neglect employing the chamber-horse. Great benefit also is to be derived from proper friction, that is, from rubbing the region of the liver and stomach twice or thrice every day, for half an hour at a time at least.

The

The extreme lassitude and failure of spirits which most persons suffer who labour under the Jaundice, render the execution of the plan just recommended, at first, irksome and difficult; they should however be encouraged as much as possible to pursue it, as the most powerful means of removing that obstruction which is the immediate cause of the disease.

The repetition of the emetic, the purgative, and the bath, can only be directed occasionally, perhaps once or twice a week, according to particular circumstances; but some doses of the following soap electuary may be taken daily, and is directed only as a succedaneum for the bile which is defective in the bowels.

R Saponis

℞ Saponis Amygdal. unciam dimidiam,
 Radic. Rhei pulv.
 Nuc. Mosch. pulv. singulor. drachmam
 Confect. Alkermes drachmas tres
 Syrupi Zingiberis q. s. ut fiat Electarium.

Two tea-spoons-full of this, taken two or three times in the day, usually render the belly sufficiently lax, and produce a plentiful discharge of urine. The accomplishment of this latter effect, as well as the former, throughout the whole course of the disease, is, I think, not a little important; as we thereby keep up a constant discharge of a portion of the bile absorbed, and in some measure guard against that dropsy which is so apt to succeed or accompany the Jaundice.

I sometimes order the rhubarb to be omitted, and the same dose of
 the

the electuary to be taken four or five times in the day, and find, that in consequence of the aromatics it contains, patients are able to take very large quantities of the soap.

In this disease I prefer the exhibition of medicines in the above form, or in a liquid one; for as the digestive organs of those who are afflicted with it are generally in a weak condition, it is not uncommon for them to complain that pills feel hard and weighty in the stomach some time after they are swallowed.

The *bitter tribe* of medicines have been much advised in the Jaundice; but in the experience I have had of them, except when given with purgatives, I cannot say that their good effects have been perceptible; and

H

I am

I am convinced that in general they may be superseded by the Bath waters. *Hoffman* indeed declares that the employment of bitters in this disease doth harm. *Verum hæc ipsa* (says he) *plus sæpe detrimenti, quam emolumenti, afferre, multiplici edoctus experientia testor.*

The *Bath waters* may be taken with safety and advantage when the disease shews no symptom of inflammation or fever, and it may be increased by degrees to a considerable quantity in the day. It is however necessary to observe, that whatever quantity is drunk daily should be divided into such portions as will not produce in the patient the least perceptible distention of the stomach. If, for example, he be enabled

enabled to drink a quart of water a day, it will be better for him to drink it by a quarter of a pint at a time, or a little more, waiting half an hour to repeat it, than it would be by the half pint. For as in this disease a sense of fullness in the region of the liver and stomach is often very distressing to the patient, every means of increasing it should be especially guarded against.

We must be directed by the circumstances of each particular case with respect to the pump from which the water is first to be drunk; it will however, in general, be most proper to begin at the Crops or Hot-bath pump.

It will be necessary also to observe certain intervals between the taking of
of

of the water and the soap electuary; the distance of about three hours between the several doses of each will be sufficient. Thus if the water be drunk at eight o'clock in the morning, the electuary may be taken at eleven, the water again at two in the afternoon and at five, the electuary again at eight, and going to bed.

The *diet* in the beginning of the disease should consist chiefly of broths; and the Bath water which hath been standing for a day exposed to the air, made use of as common drink; or if malt-liquor be agreeable, some good mild ale may be employed for that purpose. A small quantity only of food should be taken, at one time and repeated as often as there is occasion, and set
meals

meals avoided, least that uneasy sense of fullness before taken notice of be increased or produced.

Van Swieten hath recommended decoctions made of grafs, dandelion, fumitory, wild succory, and such like herbs, with whey, as a proper diet, from an idea, as it would seem, of their possessing a solvent power.

To prove the efficacy of this, he informs us, that a poor man, who could not afford the expence of medicines, was even cured of an obstinate Jaundice, by taking daily of a decoction of grafs sweetened with honey as common drink, and broth made of grafs and some animal substance as his chief food.*

How

* Ante multos annos hominem curavi ab hoc morbo, qui, quotidiano labore sibi et suis victum parare coactus, expensis

How far such diet may be prophylactic, by preventing, the concretion of biliary particles, I will not attempt to determine. I have however generally found, that the employment of much vegetable matter hath produced acidity and flatulency in the stomach and bowels, a circumstance which adds very considerably to the distress of the patient. I usually therefore direct a more generous

expensis remediorum imparerat: simul tamen constantis animi et recuperandæ salutis avidissimus: hinc promittens curationem facile persuasi illi, ut solo gramine viveret. Decoquebat magnam quantitatem graminis in aqua pura, et decocto melle edulcorato, utebatur pro potu communi; tenerum gramen verno tempore pullulans, vel et post primam sectionem renascens, incoquebat carnum jusculo, illoque solo fere utebatur cibo.

Sanctus autem fuit a pertinacissimo ictero sola hac methodo; et vidi illum pluribus annis postea incolumi sanitate frui.

VAN SWIETEN, in Boerh. de Hepat. &c.

diet,

diet, such as, the stronger kind of broths, or meats boiled down into jelly, and sometimes made-dishes, if the stomach will bear them, and old hock, Madeira, or sherry wine, or any spirit more agreeable properly diluted, as common drink, especially if there be a very great inertia or languor of the system.

But with respect to diet, it will in general be most prudent, when there is no inflammatory disposition present, to allow the patient such as he hath been accustomed to; and when he has an appetite, to restrain him rather in the quantity than in the quality of his food. For it is of the utmost importance to support as much as possible the strength of the system, especially if the disease
be

be of long standing, in order to prevent that dropfy which, we have before observed, often fucceeds or attends it. On this account alfo, we fhould endeavour to prevent every gloomy apprehenfion from taking place in the mind of our patient, and direct him to divert his cares by amufements, and the pleasures of fociety.

I have already hinted at the propriety of exciting the urinary difcharge through the whole courfe of the difeafe; but an attention to this particular is more efpecially requifite in the advanced periods of it. For which reafon I give once or twice a day, or oftener, fome of the ftronger diuretics.

℞. Salis diuretici, drachmam

Radicis Scillæ pulv.

Nucis Mosch. pulv. singulor. grana octo

Sacchari purissimi scrupulum, contritis adde

Aquæ Cinnamom. simpl. fescunciam

— Juniperi comp. drachmas duas

Tinct. Thebaicæ, guttas decem; ut fiat haustus.

℞. Olei Juniperi, guttas quindecim

Saponis Amygdal.

Sacchari purissimi singulor. scrupulum, bene contritis gradatim adde

Aquæ Cinnam. simpl. unciam et drachmas sex

Tinct. Thebaicæ, guttas decem; ut fiat haustus.

℞. Aquæ Cinnam. simplic. unciam et drachmas sex

Spiritus nitri dulcis

Tincturæ Cantharidum, singulor. drachmam;

Fiat haustus.

℞. Argenti vivi

Mannæ singulor. semidrachmam, contere donec argenti vivi nullum vestigium appareat; deinde adde

Radicis Scillæ siccat. drachmam

Oxymellis scillitic. q. s. ut fiat massa, in pilulas quatuor viginti dividenda, e quibus sumat æger unam vel duas mane nocteque, super-bibendo cochlearia quatuor ampla Julepi sequentis.

R. Spiritus Mindereri uncias quatuor

Aquæ Raphani compos.

— Menthæ pip. simpl. singulor. uncias duas

Sacchari purissimi, drachmas duas ; Fiat Julepum.

Having hitherto found one or the other of the above formulæ sufficiently efficacious as a diuretic in this disease, I am induced to insert them : but since as *Morgagni* upon another occasion observes, *non omnia omnibus auxilia prosunt*, others will perhaps be sometimes necessary. Such may, however, be met with in most practical authors.

If, notwithstanding a strenuous perseverance in the plan laid down, the disease continue obstinate, and the patient becomes very sensibly weaker, the urinary discharge much diminished, and the abdomen considerably

considerably swelled, the use of the Bath waters both internally and externally must be abstained from. For in this case we have every reason to apprehend a fatal termination, and we can do no more than attempt to prolong life, by the liberal employment of diuretics, with the interposition of the corroborant and cordial class of medicines, and the best and most substantial nourishment the patient is able to take.

When the obstruction which produces the Jaundice arises only from *viscid bile*, it is never, except in very particular constitutions, attended with inflammation, and there is little or no danger of exciting it by any medicines we may employ to
evacuate

evacuate the gall-ducts. I have usually therefore first given an emetic in the evening, and on the succeeding morning the bitter purgative before taken notice of. The patient may afterwards drink some of the Cross-bath water.

Should however any degree of fever attend the patient on the approach of the disease, he must abstain from the water until that be removed. Both the emetic and purgative should be occasionally repeated, but especially the former, as it agitates or affects the gall-ducts more considerably than any other medicine.*

* Quandoque vidi bilem instar tenacis glutinis redditam vomitu, nunquam postea redeunte ictero.

Comment. VAN SWIETEN in Boerh. de Ictero.

Next to emetics and purgatives, I am of opinion that no remedy so much contributes to remove the obstruction which viscid bile occasions, as those fluids, which from the weakness of their stimulant property admit of being taken in large quantities, so as plentifully to dilute, without affecting too strongly the arterial system, or remaining totally inactive in the body. For that reason, therefore, I have generally ordered the Cross-bath water to be drunk very liberally, provided the urinary discharge be equal to the quantity of fluids which are daily taken. Such a discharge will in general be promoted by the constant use of the soap electuary, and the bowels kept also sufficiently open by it.

Although

Although in this case *bathing* may be employed with advantage, yet it is seldom necessary; and when it is, a more stimulant bath, that is, one of an higher degree of heat, may be used, than was recommended in the former part of this Essay.

The *diet* and *exercise* of the patient should be of the same nature as that directed when the disease is excited by gall-stones.

To conclude. When the means employed to remove the obstruction which is occasioned by viscid bile are insufficient, I need scarcely observe, that it will be necessary to have recourse to those which are advised for the removal of gall-stones; but it is proper to remark, that when
much

much bile appears in the stools after the use of them, cordial and strengthening medicines should be given, whether the obstruction hath arisen from the former or the latter cause. For it often happens, that considerable debility succeeds the removal of a long obstruction of the gall-ducts.

On this account therefore, whenever a discharge of bile takes place in any period of the disease, the water from the King's-bath pump must be drunk instead of any other, as it most considerably tends to restore that tone to the stomach and bowels on which the general strength of the system so much depends.

T H E E N D.

